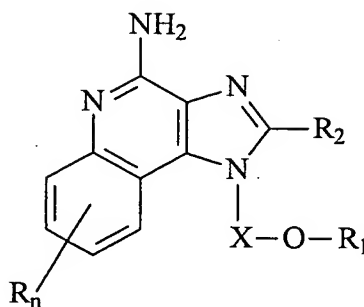


WHAT IS CLAIMED IS:

1. A compound of the formula (I):



(I)

wherein: X is $-CHR_5-$, $-CHR_5$ -alkyl-, or $-CHR_5$ -alkenyl-;

R_1 is selected from the group consisting of:

- $-R_4-NR_3-SO_2-R_6$ -alkyl;
- $-R_4-NR_3-SO_2-R_6$ -alkenyl;
- $-R_4-NR_3-SO_2-R_6$ -aryl;
- $-R_4-NR_3-SO_2-R_6$ -heteroaryl;
- $-R_4-NR_3-SO_2-R_6$ -heterocyclyl;
- $-R_4-NR_3-SO_2-R_7$;
- $-R_4-NR_3-SO_2-NR_5-R_6$ -alkyl;
- $-R_4-NR_3-SO_2-NR_5-R_6$ -alkenyl;
- $-R_4-NR_3-SO_2-NR_5-R_6$ -aryl;
- $-R_4-NR_3-SO_2-NR_5-R_6$ -heteroaryl;
- $-R_4-NR_3-SO_2-NR_5-R_6$ -heterocyclyl; and
- $-R_4-NR_3-SO_2-NH_2$;

R_2 is selected from the group consisting of:

- hydrogen;
- alkyl;
- alkenyl;

-aryl;
-heteroaryl;
-heterocyclyl;
-alkyl-Y-alkyl;
5 -alkyl-Y-alkenyl;
-alkyl-Y-aryl; and
- alkyl or alkenyl substituted by one or more substituents selected
from the group consisting of:

10 -OH;
-halogen;
-N(R₅)₂;
-CO-N(R₅)₂;
-CO-C₁₋₁₀ alkyl;
-CO-O-C₁₋₁₀ alkyl;
15 -N₃;
-aryl;
-heteroaryl;
-heterocyclyl;
-CO-aryl; and
20 -CO-heteroaryl;

Y is -O- or -S(O)₀₋₂;

R₃ is H, C₁₋₁₀ alkyl, or arylalkyl;

25 R₄ is alkyl or alkenyl, which may be interrupted by one or more -O-
groups; or R₃ and R₄ can join together to form a ring;

each R₅ is independently H, C₁₋₁₀ alkyl, or C₂₋₁₀ alkenyl;

R₆ is a bond, alkyl, or alkenyl, which may be interrupted by one or more
-O- groups;

R₇ is C₁₋₁₀ alkyl; or R₃ and R₇ can join together to form a ring;

30 n is 0 to 4; and

each R present is independently selected from the group consisting of C₁₋₁₀
alkyl, C₁₋₁₀ alkoxy, hydroxy, halogen and trifluoromethyl;

or a pharmaceutically acceptable salt thereof.

2. A compound or salt of claim 1 wherein X is $-\text{CH}(\text{alkyl})\text{-alkyl}-$, wherein the alkyl groups can be the same or different.

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3. A compound or salt of claim 1 wherein X is $-\text{CH}_2\text{-CH}_2-$.

4. A compound or salt of claim 1 wherein X is $-\text{CH}(\text{C}_2\text{H}_5)\text{-CH}_2-$.

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5. A compound or salt of claim 1 wherein R_2 is H.

6. A compound or salt of claim 1 wherein R_2 is alkyl.

7. A compound or salt of claim 1 wherein R_2 is $-\text{alkyl-O-alkyl}$.

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8. A compound or salt of claim 1 wherein R_3 and R_4 join to form a heterocyclic ring.

9. A compound or salt of claim 1 wherein R_1 is $-\text{R}_4\text{-NR}_3\text{-SO}_2\text{-R}_6\text{-aryl}$.

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10. A compound or salt of claim 1 wherein n is 0.

11. A compound selected from the group consisting of:

N-(2-{2-[4-amino-2-(2-methoxyethyl)-1*H*-imidazo[4,5-*c*]quinolin-1-yl]ethoxy}ethyl)methanesulfonamide;

25

N-(2-{2-[4-amino-2-(2-methoxyethyl)-6,7,8,9-tetrahydro-1*H*-imidazo[4,5-*c*]quinolin-1-yl]ethoxy}ethyl)methanesulfonamide;

N-(2-{2-[4-amino-2-(2-methoxyethyl)-1*H*-imidazo[4,5-*c*]quinolin-1-yl]ethoxy}ethyl)-*N*-methylmethanesulfonamide;

30

N-(2-{2-[4-amino-2-(2-methoxyethyl)-6,7,8,9-tetrahydro-1*H*-imidazo[4,5-*c*]quinolin-1-yl]ethoxy}ethyl)-*N*-methylmethanesulfonamide;

2-butyl-1-{2-[2-(1,1-dioxidoisothiazolidin-2-yl)ethoxy]ethyl}-1*H*-imidazo[4,5-*c*]quinolin-4-amine; and

N-[10-(4-amino-2-methyl-1*H*-imidazo[4,5-*c*]quinolin-1-yl)-4,7-dioxadecyl]-5-dimethylaminonaphthalene-1-sulfonamide;
or a pharmaceutically acceptable salt thereof.

12. A compound selected from the group consisting of:

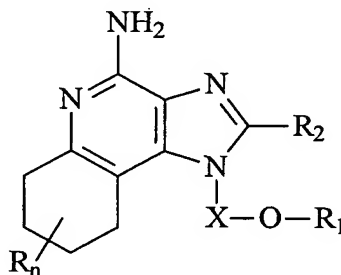
N-(2-{2-[4-amino-2-(2-methoxyethyl)-1*H*-imidazo[4, 5-*c*]quinolin-1-yl]ethoxy}ethyl)-N-methylpropane-2-sulfonamide;

N-{2-[2-(4-amino-2-ethyl-1*H*-imidazo[4, 5-*c*]quinolin-1-yl)ethoxy]ethyl}methanesulfonamide;

N-{2-[2-(4-amino-2-methyl-1*H*-imidazo[4, 5-*c*]quinolin-1-yl)ethoxy]ethyl}methanesulfonamide; and

N-{2-[2-(4-amino-2-methyl-1*H*-imidazo[4, 5-*c*]quinolin-1-yl)ethoxy]ethyl}propane-2-sulfonamide;
or a pharmaceutically acceptable salt thereof.

13. A compound of the formula (II)



(II)

wherein: X is -CHR₅-, -CHR₅-alkyl-, or -CHR₅-alkenyl-;

R₁ is selected from the group consisting of:

-R₄-NR₃-SO₂-R₆-alkyl;

-R₄-NR₃-SO₂-R₆-alkenyl;

-R₄-NR₃-SO₂-R₆-aryl;

-R₄-NR₃-SO₂-R₆-heteroaryl;

-R₄-NR₃-SO₂-R₆-heterocyclyl;

-R₄-NR₃-SO₂-R₇;
 -R₄-NR₃-SO₂-NR₅-R₆-alkyl;
 -R₄-NR₃-SO₂-NR₅-R₆-alkenyl;
 -R₄-NR₃-SO₂-NR₅-R₆-aryl;
 -R₄-NR₃-SO₂-NR₅-R₆-heteroaryl;
 -R₄-NR₃-SO₂-NR₅-R₆-heterocyclyl; and
 -R₄-NR₃-SO₂-NH₂;

R₂ is selected from the group consisting of:

-hydrogen;
 -alkyl;
 -alkenyl;
 -aryl;
 -heteroaryl;
 -heterocyclyl;
 -alkyl-Y-alkyl;
 -alkyl-Y-alkenyl;
 -alkyl-Y-aryl; and
 -alkyl or alkenyl substituted by one or more substituents selected
 from the group consisting of:

-OH;
 -halogen;
 -N(R₅)₂;
 -CO-N(R₅)₂;
 -CO-C₁₋₁₀ alkyl;
 -CO-O-C₁₋₁₀ alkyl;
 -N₃;
 -aryl;
 -heteroaryl;
 -heterocyclyl;
 -CO-aryl; and
 -CO-heteroaryl;

Y is -O- or -S(O)₀₋₂;

R₃ is H, C₁₋₁₀ alkyl, or arylalkyl;

R₄ is alkyl or alkenyl, which may be interrupted by one or more -O- groups; or R₃ and R₄ can join together to form a ring;

5 each R₅ is independently H, C₁₋₁₀ alkyl, or C₂₋₁₀ alkenyl;

R₆ is a bond, alkyl, or alkenyl, which may be interrupted by one or more -O- groups;

R₇ is C₁₋₁₀ alkyl; or R₃ and R₇ can join together to form a ring;

n is 0 to 4; and

10 each R present is independently selected from the group consisting of C₁₋₁₀ alkyl, C₁₋₁₀ alkoxy, hydroxy, halogen, and trifluoromethyl; or a pharmaceutically acceptable salt thereof.

14. A compound or salt of claim 13 wherein R₂ is H or alkyl.

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15. A compound or salt of claim 13 wherein R₂ is -alkyl-O-alkyl.

16. A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 1 and a pharmaceutically acceptable carrier.

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17. A method of inducing cytokine biosynthesis in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 1 to the animal.

18. The method of claim 17 wherein the cytokine is IFN- α .

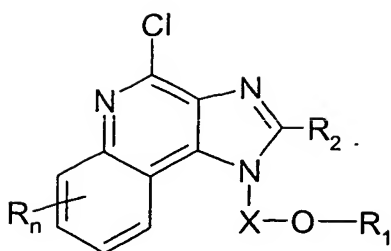
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19. A method of treating a viral disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 1 to the animal.

20. A method of treating a neoplastic disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 1 to the animal.

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21. A compound of the formula (III):



(III)

5

wherein

X is $-\text{CHR}_5-$, $-\text{CHR}_5\text{-alkyl-}$, or $-\text{CHR}_5\text{-alkenyl-}$;

R_1 is selected from the group consisting of:

$-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{R}_6\text{-alkyl-}$;

$-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{R}_6\text{-alkenyl-}$;

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$-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{R}_6\text{-aryl-}$;

$-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{R}_6\text{-heteroaryl-}$;

$-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{R}_6\text{-heterocyclyl-}$;

$-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{R}_7$;

$-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{NR}_5\text{-R}_6\text{-alkyl-}$;

15

$-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{NR}_5\text{-R}_6\text{-alkenyl-}$;

$-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{NR}_5\text{-R}_6\text{-aryl-}$;

$-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{NR}_5\text{-R}_6\text{-heteroaryl-}$;

$-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{NR}_5\text{-R}_6\text{-heterocyclyl-}$; and

$-\text{R}_4-\text{NR}_3-\text{SO}_2-\text{NH}_2$;

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R_2 is selected from the group consisting of:

-hydrogen;

-alkyl;

-alkenyl;

-aryl;

25

-heteroaryl;

-heterocyclyl;

-alkyl-Y-alkyl;

-alkyl-Y-alkenyl;

-alkyl-Y-aryl; and
- alkyl or alkenyl substituted by one or more substituents selected
from the group consisting of:

-OH;
-halogen;
-N(R₅)₂;
-CO-N(R₅)₂;
-CO-C₁₋₁₀ alkyl;
-CO-O-C₁₋₁₀ alkyl;
-N₃;
-aryl;
-heteroaryl;
-heterocyclyl;
-CO-aryl; and
-CO-heteroaryl;

Y is -O- or -S(O)₀₋₂-;

R₃ is H, C₁₋₁₀ alkyl, or arylalkyl;

R₄ is alkyl or alkenyl, which may be interrupted by one or more -O-
groups; or R₄ and R₃ can join to form a ring;

each R₅ is independently H, C₁₋₁₀ alkyl, or C₂₋₁₀ alkenyl;

R₆ is a bond, or is alkyl or alkenyl, which may be interrupted by one or
more -O- groups;

R₇ is C₁₋₁₀ alkyl; or R₃ and R₇ can join together to form a ring;

n is 0 to 4; and

each R present is independently selected from the group consisting of C₁₋₁₀
alkyl, C₁₋₁₀ alkoxy, hydroxy, halogen and trifluoromethyl;
or a pharmaceutically acceptable salt thereof.

22. A pharmaceutical composition comprising a therapeutically effective amount of a
compound or salt of claim 13 and a pharmaceutically acceptable carrier.

23. A method of inducing cytokine biosynthesis in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 13 to the animal.

24. The method of claim 23 wherein the cytokine is IFN- α .

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25. A method of treating a viral disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 13 to the animal.

26. A method of treating a neoplastic disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 13 to the animal.

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